

04-23-'06 19:17 FROM-TUNG & ASSOCIATES

12485404035

T-798 P08/25 U-207

U.S.S.N. 10,811,621

Claim Amendments

Please amend claims 1, 3, 7-9, 11, 15, 17-19 as follows:

U.S.S.N. 10,811,621

Listing of Claims

1. (currently amended) An electrolyte bath comprising a suspension layer for forming a wetting layer on a substrate for copper electroplating, comprising:

an electrolyte solution; and

a composition comprising an organic acid and a non-ionic polymer mixed with said organic acid provided in said electrolyte solution;

wherein said composition forms a separated suspension layer within said electrolyte solution.

2. (original) The electrolyte of claim 1 wherein said organic acid is citric acid or acetic acid.

3. (currently amended) The electrolyte of claim 1 wherein said non-ionic polymer is an alcohol, an amine or alkylphenol alkoxylate.

4. (original) The electrolyte of claim 1 wherein said composition is present in said electrolyte solution in a concentration of

U.S.S.N. 10,811,621

about 5 % by weight.

5. (original) The electrolyte of claim 1 wherein said non-ionic polymer has a molecular weight of less than 1,000.

6. (original) The electrolyte of claim 5 wherein said organic acid is citric acid or acetic acid.

7. (currently amended) The electrolyte of claim 1 wherein said organic acid is present in said composition in a wt.% of about 10, and wherein said non-ionic polymer is present in said composition in a wt.% of about .5.

8. (currently amended) The electrolyte of claim 7 wherein said organic acid is citric acid or acetic acid and said non-ionic polymer is an alcohol, an amine or alkylphenol alkoxylate.

9. (currently amended) An electrolyte bath comprising a suspension layer for forming a wetting layer on substrate prior to [[for]] copper electroplating said substrate layer within said electrolyte, comprising:

an electrolyte solution; and

U.S.S.N. 10,811,621

a composition comprising an organic acid and a non-  
ionic polymer mixed with said organic acid provided in

wherein said composition forms a separated suspension  
layer within said electrolyte solution said suspension layer  
for forming a wetting layer on a substrate as said substrate  
is passed through said suspension layer.

10. (original) The electrolyte of claim 9 wherein said organic acid is citric acid or acetic acid.

11. (currently amended) The electrolyte of claim 9 wherein said non-ionic polymer is an alcohol, an amine or alkylphenol alkoxylate.

12. (original) The electrolyte of claim 11 wherein said composition is present in said electrolyte solution in a concentration of about 5% by weight.

13. (original) The electrolyte of claim 9 wherein said organic acid is present in said composition in a wt.% of about 10, and wherein said non-ionic polymer is present in said composition in

U.S.S.N. 10,811,621

a wt.% of about 5.

14. (original) The electrolyte of claim 13 wherein said organic acid is citric acid or acetic acid.

15. (currently amended) The electrolyte of claim 13 wherein said non-ionic polymer is an alcohol, an amine or alkylphenol alkoxylate.

16. (original) The electrolyte of claim 15 wherein said organic acid is citric acid or acetic acid.

17. (currently amended) A method for electroplating a metal onto a surface in an electroplating electrolyte solution, comprising the steps of:

providing a composition mixture comprising an organic acid and a non-ionic polymer;

forming a suspension layer of said composition mixture within said electrolyte solution;

forming a wetting layer on said surface by passing said

U.S.S.N. 10,811,621

surface through said suspension layer and into said electrolyte solution; and

electroplating said metal onto said surface.

18. (currently amended) The method of claim 17 wherein said organic acid is citric acid or acetic acid and said non-ionic polymer is an alcohol, an amine or alkylphenol alkoxylate.

19. (currently amended) The method of claim 17 wherein said organic acid is present in said composition in a wt.% of about 10, and wherein said non-ionic polymer is present in said composition in a wt.% of about 5.

20. (original) The method of claim 17 further comprising a substrate and wherein said surface comprises a metal seed layer deposited on said substrate.

Remarks

Thorough examination by the Examiner is noted and appreciated.

Applicants have amended the Specification as required by Examiner, and thank Examiner for careful examination.